

CERTIFICATE OF CONFORMITY


1. **HAZARDOUS (CLASSIFIED) LOCATION ELECTRICAL EQUIPMENT PER US REQUIREMENTS**
2. **Certificate No:** FM16US0307X
3. **Equipment:** 500-AaW and 500-AaD. I/P Pressure Transducers.
(Type Reference and Name)
4. **Name of Listing Company:** ControlAir Inc
5. **Address of Listing Company:** 8 Columbia Dr
Amherst
New Hampshire 03031, USA
6. The examination and test results are recorded in confidential report number:

5Y6A8.AX dated 5th December 1995
7. FM Approvals LLC, certifies that the equipment described has been found to comply with the following Approval standards and other documents:

FM Class 3600:2011, FM Class 3610:2015, FM Class 3611:2004, FM Class 3611:2004,
FM Class 3810:2005, ANSI/NEMA 250:1991
8. If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to specific conditions of use specified in the schedule to this certificate.
9. This certificate relates to the design, examination and testing of the products specified herein. The FM Approvals surveillance audit program has further determined that the manufacturing processes and quality control procedures in place are satisfactory to manufacture the product as examined, tested and Approved.
10. **Equipment Ratings:**

500-AaW
Intrinsically Safe Apparatus for use in Class I, II, III, Division 1, Groups C, D, E, F, G; in accordance with control drawing 431-990-013 for indoors and outdoors (Type 4X) hazardous (classified) locations with an ambient temperature rating of -30 °C to +60 ° C. Nonincendive for Class I, Division 2, Groups A, B, C and D and is suitable for Class III Division 2, Group F and G, Class III Division 1 and 2 for indoors and outdoors

Certificate issued by:



J. E. Marquedant
Manager, Electrical Systems

24 January 2018

Date

To verify the availability of the Approved product, please refer to www.approvalguide.com

THIS CERTIFICATE MAY ONLY BE REPRODUCED IN ITS ENTIRETY AND WITHOUT CHANGE

FM Approvals LLC. 1151 Boston-Providence Turnpike, Norwood, MA 02062 USA
T: +1 (1) 781 762 4300 F: +1 (1) 781 762 9375 E-mail: information@fmapprovals.com www.fmapprovals.com

SCHEDULE



US Certificate Of Conformity No: FM16US0307X

(Type 4X) hazardous (classified) locations with an ambient temperature rating of -30 °C to +60 ° C

500-AaD

Intrinsically Safe Apparatus for use in Class I, Division 1, Groups C, D; in accordance with control drawing 431-990-013 for indoors and outdoors (Type 4X) hazardous (classified) locations with an ambient temperature rating of -30 °C to +60 ° C. Nonincendive for Class I, Division 2, Groups A, B, C and D for indoors hazardous (classified) locations with an ambient temperature rating of -30 °C to +60 ° C

11. The marking of the equipment shall include:

Class I Division 1, Groups, C, D; T4 Ta = -30°C to +60°C; Type 4X

Class II, Division 1, Groups E, F, G, Class III, Division 1; T4 Ta = -30°C to +60°C; Type 4X

Class I Division 2, Groups, A, B, C, D; T4 Ta = -30°C to +60°C; Type 4X

Class II, Division 2, Groups F, G, Class III, Division 2; T4 Ta = -30°C to +60°C; Type 4X

12. Description of Equipment:

General - The 500-A Series I/P Transducer are process control devices which converts a 4 - 20 mA DC current input to a pressure flow output. The transducer utilizes a coil and magnet to convert the electrical signal to a mechanical pressure output control.

Construction - The trimming resistors and associated components are mounted on a small printed circuit board inside the housing. housing measures 4.5 x 2.2 x 2.2 inches (10.7 x 5.7 x 5.7 cm) with a threaded conduit opening for electrical input and two threaded openings for air in and out.

Ratings - The 500-A Series I/P Transducer operate on 4- 20 mA. The transmitters are rated for use in an ambient temperature range of -30°C to +60°C.

500-AaW. I/P Pressure Transducer.

a = Output range A, B, C, D, E, F, G or H.

13. Specific Conditions of Use:

1. Manufacturer's instructions supplied with the protective assemblies as well as the system installation instructions and the National Electric Code (ANSI/NFPA 70) and ANSI/ISA RP12.6 must be followed when installing this equipment.
2. Control room equipment connected to associated apparatus should not use or generate more than the maximum voltage specified for the barrier.
3. Tampering or replacement with nonfactory components may adversely affect the safe use of the system..
4. The resistance between the shunt diode barrier ground and earth ground must be less than 1.0 ohm.

14. Test and Assessment Procedure and Conditions:

This Certificate has been issued in accordance with FM Approvals US Certification Requirements.

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SCHEDULE



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US Certificate Of Conformity No: FM16US0307X

15. Schedule Drawings

A copy of the technical documentation has been kept by FM Approvals.

16. Certificate History

Details of the supplements to this certificate are described below:

Date	Description
5 th December 1995	Original Issue.
30 th October 1997	<u>Supplement 1:</u> Report Reference: – 2D1AO.AX Dated 30 th October 1997. Description of the Change: Extended Approval for outdoor locations NEMA 4X
17 th October 2016	<u>Supplement 2:</u> Report Reference: – RR206316 Dated 17 th October 2016. Description of the Change: Entity parameter changes.
24 th January 2018	<u>Supplement 3:</u> Report Reference: – RR210347 Dated 24 th January 2018. Description of the Change: Corrected editorial error in the minimum operating temperature.

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CERTIFICATE OF CONFORMITY

1. **HAZARDOUS (CLASSIFIED) LOCATION ELECTRICAL EQUIPMENT PER US REQUIREMENTS**
2. **Certificate No:** FM16US0385X
3. **Equipment:** T550-AbA, T550-AbT, T550-AbD, T550-bcD, T550-bcT, and
(Type Reference and Name) T550-bcA. I/P Pressure Transducer.
4. **Name of Listing Company:** ControlAir Inc
5. **Address of Listing Company:** 8 Columbia Dr
Amherst
New Hampshire 03031, USA
6. The examination and test results are recorded in confidential report number:

3013848 dated 19th December 2002
7. FM Approvals LLC, certifies that the equipment described has been found to comply with the following Approval standards and other documents:

FM Class 3600:1998, FM Class 3610:2015, FM Class 3611:1999,
FM Class 3810:19955, ANSI/NEMA 250:1991
8. If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to specific conditions of use specified in the schedule to this certificate.
9. This certificate relates to the design, examination and testing of the products specified herein. The FM Approvals surveillance audit program has further determined that the manufacturing processes and quality control procedures in place are satisfactory to manufacture the product as examined, tested and Approved.
10. Equipment Ratings:

Model T550-AbA. I/P Transducer
Intrinsically Safe Apparatus for use in Class I, II, III, Division 1, Groups C, D, E, F, G; in accordance with control drawing 431-990-036 for indoors and outdoors (Type 4X) hazardous (classified) locations with an ambient temperature rating of -30 °C to +70 ° C.

Certificate issued by:



J. E. Marquedant
Manager, Electrical Systems

15 January 2017

Date

To verify the availability of the Approved product, please refer to www.approvalguide.com

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SCHEDULE



US Certificate Of Conformity No: FM16US0385X

Models T550-AbT, T550-AbD. I/P Transducer

Intrinsically Safe Apparatus for use in Class I, Division 1, Groups C, and D; in accordance with control drawing 431-990-036 for indoors and outdoors (Type 4X) hazardous (classified) locations with an ambient temperature rating of -30 °C to +70 °C.

Models T550-bcD, T550-bcT. I/P Transducer

Nonincendive for Class I, Division 2, Groups A, B, C and D for indoors and outdoors (Type 4X) hazardous (classified) locations with an ambient temperature rating of -30 °C to +70 °C

Model T550-bcA. I/P Transducer

Nonincendive for Class I, Division 2, Groups A, B, C and D and is suitable for Class III Division 2, Group F and G, Class III Division 1 and 2 for indoors and outdoors (Type 4X) hazardous (classified) locations with an ambient temperature rating of -30 °C to +70 °C

11. The marking of the equipment shall include:

Model T550-AbA. I/P Transducer

Class I Division 1, Groups, C, D; T4 Ta =+70°C; Type 4X
Class II, Division 1, Groups E, F, G, Class III, Division 1; T4 Ta =+70°C; Type 4X

Models T550-AbT, T550-AbD. I/P Transducer

Class I Division 1, Groups, C, D; T4 Ta =+70°C; Type 4X

Models T550-bcD, T550-bcT. I/P Transducer

Class I Division 2, Groups, A, B, C, D; T4 Ta =+70°C; Type 4X

Model T550-bcA. I/P Transducer

Class I Division 2, Groups, A, B, C, D; T4 Ta =+70°C; Type 4X
Class II, Division 2, Groups F, G, Class III, Division 2; T4 Ta =+70°C; Type 4X

12. **Description of Equipment:**

General - The T550 Series I/P Transducer are process control devices which converts a 4 - 20 mA DC current input to a pressure flow output. The transducer utilizes a coil and magnet to convert the electrical signal to a mechanical pressure output control.

Construction - The trimming resistors and associated components are mounted on a small printed circuit board inside an epoxy painted aluminum housing..

Ratings - The T550 Series I/P Transducer operate on 4- 20 mA. The transmitters are rated for use in an ambient temperature range of -30°C to +70°C.

Model T550-AbA. I/P Transducer

b = Output Pressure C, D, E, F, G, H, I, J or K.

Models T550-AbT, T550-AbD. I/P Transducer

b = Output Pressure C, D, E, F, G, H, I, J or K.

Models T550-bcD, T550-bcT. I/P Transducer

b = Input Signal range A, C, D, E or F.

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US Certificate Of Conformity No: FM16US0385X

c = Output Pressure C, D, E, F, G, H, I, J or K.

Model T550-bcA. I/P Transducer

b = Output Pressure C, D, E, F, G, H, I, J or K.

c = Electrical Signal option A, C, D, E or F.

13. Specific Conditions of Use:

1. Manufacturer's instructions supplied with the protective assemblies as well as the system installation instructions and the National Electric Code (ANSI/NFPA 70) and ANSI/ISA RP12.6 must be followed when installing this equipment.
2. Control room equipment connected to associated apparatus should not use or generate more than the maximum voltage specified for the barrier.
3. Tampering or replacement with nonfactory components may adversely affect the safe use of the system..
4. The resistance between the shunt diode barrier ground and earth ground must be less than 1.0 ohm.

14. Test and Assessment Procedure and Conditions:

This Certificate has been issued in accordance with FM Approvals US Certification Requirements.

15. Schedule Drawings

A copy of the technical documentation has been kept by FM Approvals.

16. Certificate History

Details of the supplements to this certificate are described below:

Date	Description
19 th December 2002	Original Issue.
15 th January 2017	Supplement 1: Report Reference: – RR207165 dated 15 th January 2017 Description of the Change: Entity parameter changes and update FM3610.

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CERTIFICATE OF COMPLIANCE

HAZARDOUS (CLASSIFIED) LOCATION ELECTRICAL EQUIPMENT

This certificate is issued for the following equipment:

T590-Aab. I/P Converter.

IS / I / 1 / ABCD / T4 Ta = 75 °C; - 431-990-047 Entity

I / 0 / AEx ia IIC / T4 Ta = 75 °C; - 431-990-047 Entity

NI / I / 2 / ABCD / T4 Ta = 75 °C

I / 2 / IIC / T4 Ta = 75 °C

Where

a = Output Pressure: C, D, E

b = Connection: M, P

Entity Parameters

Temperature class	Ta	Ii	Ui	Pi
T6	60 °C	50 mA	42.5 V	2.125 W
T6	55 °C	60 mA	38.8 V	2.328 W
T5	70 °C	60 mA	38.8 V	2.328 W
T5	55 °C	100 mA	30 V	3 W
T5	45 °C	120 mA	28 V	3.36 W
T4	85 °C	60 mA	38.8 V	2.328 W
T4	85 °C	100 mA	30 V	3.0 W
T4	80 °C	120 mA	28 V	3.36 W
T4	70 °C	150 mA	25.5 V	3.825 W
T5	85 °C	23 mA	6.75 V	0.155 W

Specific Conditions for use;

1. The non-metallic cover of the I/P converter is considered to constitute an electrostatic discharge hazard. Clean only with a damp cloth.
2. The I/P converter enclosure's metal base must be mounted as part of a bonded structure.
3. The I/P converter enclosure contains aluminum and is considered to constitute a potential risk of ignition by impact or friction and must be taken into account during installation.
4. The User shall permanently mark the protection type chosen. Once the type of protection has been marked it shall not be changed.

Equipment Ratings:

Intrinsically Safe for Class I, Division 1, Groups A, B, C, and D; intrinsically safe for Class I, Zone 0, Group IIC; suitable for Class I, Division 2, Groups A, B, C, and D; and suitable for Class I, Zone 2, Group IIC hazardous classified locations.

FM Approved for:

ControlAir Inc
Amherst, NH



This certifies that the equipment described has been found to comply with the following Approval Standards and other documents:

Class 3600	1998
Class 3610	2010
Class 3611	2004
Class 3810	1995
ANSI/ISA 60079-0	2009
ANSI/ISA 60079-11	2009


Original Project ID: 3023940

Approval Granted: January 24, 2006

Subsequent Revision Reports / Date Approval Amended

Report Number	Date	Report Number	Date
070409	June 5, 2007		
3042023	March 6, 2012		

FM Approvals LLC



J. E. Marquedant
Group Manager, Electrical

6 March 2012

Date



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FM Approvals
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CERTIFICATE OF COMPLIANCE

HAZARDOUS (CLASSIFIED) LOCATION ELECTRICAL EQUIPMENT

This certificate is issued for the following equipment:

T595XP-Aab. I/P Transducer.

IS / I, II, III / 1 / ABCDEFG / T4 Ta = -40°C to +75 °C; - 431-990-055 Entity; Type 4X, IP65

I / 0 / Ex ia IIC / T4 Ta = -40°C to +75 °C; - 431-990-055 Entity; Type 4X, IP65

NI / I / 2 / ABCD / T4 Ta = -40°C to +75 °C; Type 4X, IP65

S / II, III / 2 / EFG T4 Ta = -40°C to +75 °C; Type 4X, IP65

I / 2 / IIC / T4 Ta = -40°C to +75 °C; Type 4X, IP65

XP / I / 1 / BCD / T6 Ta = -40°C to +75°C; Type 4X, IP65

DIP / II, III / 1 / EFG / T6 Ta = -40°C to +75°C; Type 4X, IP65

I / 1 / AEx d / IIB+H₂ / T6 Ta = -40°C to +75°C; Type 4X, IP65

II,III / 1 / AEx tD / 21 / T85°C Ta = -40°C to +75°C; Type 4X, IP65

a = Output pressure C, D or E.

b = Connection M, N or P.

Entity Parameters

Temperature class	Ta	Ii	Ui	Pi
T6	60 °C	50 mA	42.5 V	2.125 W
T6	55 °C	60 mA	38.8 V	2.328 W
T5	70 °C	60 mA	38.8 V	2.328 W
T5	55 °C	100 mA	30 V	3 W
T5	45 °C	120 mA	28 V	3.36 W
T4	85 °C	60 mA	38.8 V	2.328 W
T4	85 °C	100 mA	30 V	3.0 W
T4	80 °C	120 mA	28 V	3.36 W
T4	70 °C	150 mA	25.5 V	3.825 W
T5	85 °C	23 mA	6.75 V	0.155 W

Specific Conditions for use;

1. The I/P Transducer enclosure's metal base must be mounted as part of a bonded structure.
2. The I/P Transducer enclosure contains aluminum and is considered to constitute a potential risk of ignition by impact or friction and must be taken into account during installation.
3. The User shall permanently mark the protection type chosen. Once the type of protection has been marked it



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shall not be changed.

Equipment Ratings:

Intrinsically Safe for Class I II & III, Division 1, Groups A, B, C, D, E, F and G; Intrinsically Safe for Class I, Zone 0, Group IIC; Nonincendive for Class I, Division 2, Groups A, B, C, and D; Suitable for Class II & III, Division 2, Groups E, F and G; and Suitable for Class I, Zone 2, Group IIC; Explosionproof for Class I, Division 1, Groups B, C and D; Dust-ignitionproof for Class II/III, Division 1, Groups E, F and G; Flameproof for Class I, Zone 1 Ex d IIB+H₂ T6 Ta = -40°C to +75°C; and Dust-ignitionproof DIP A21 IP65 T85°C hazardous locations, indoors and outdoors (Type 4X and IP65).

FM Approved for:

ControlAir Inc
Amherst, NH

This certifies that the equipment described has been found to comply with the following Approval Standards and other documents:

Class 3600	1998
Class 3610	2010
Class 3611	2004
Class 3615	2006
Class 3810	2005
ANSI/ISA 60079-0	2005
ANSI/ISA 60079-1	2005
ANSI/ISA 60079-11	2009
ANSI/ISA 61241-0	2006
ANSI/ISA 61241-1	2006
ANSI/NEMA 250	1991
ANSI/IEC 60529	2004

Original Project ID: 3031829

Approval Granted: December 9, 2008

Subsequent Revision Reports / Date Approval Amended

Report Number	Date	Report Number	Date
081216	January 8, 2009		
3042023	March 6, 2012		

FM Approvals LLC



J.E. Marquedant
Group Manager, Electrical

6 March 2012
Date



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CERTIFICATE OF COMPLIANCE

HAZARDOUS (CLASSIFIED) LOCATION ELECTRICAL EQUIPMENT

This certificate is issued for the following equipment:

I/P Converter T900-AbAd

IS/I,II,III/1/CDEFG/T4 Ta = 70 °C- 431-990-023 Entity; Type 4X

I/O/AEx ia/IIB/T4 Ta = 70 °C- 431-990-023 Entity; Type 4X

NI/I/2/ABCD; S/II,III/2/FG/T4 Ta = 70 °C; Type 4X

Entity Parameters: Ui (Vmax) = 30 V, Ii (Imax) = 125 mA, Pi = 0.70 W, Ci = 0 µF, Li = 0 mH

b = Output Pressure Range: C, D, E, F G, H, L, I, J

d = Options: A

Specific Conditions for use:

1. The enclosure contains aluminum and is considered to constitute a potential risk of ignition by impact or friction and must be taken into account during installation and use.

I/P Converter T900-AbDd

IS/I/1/CD/T4 Ta = 70 °C; - 431-990-023 Entity; Type 2

I/O/AEx ia/IIB/T4 Ta = 70 °C- 431-990-023 Entity; Type 2

NI/I/2/ABCD/T4 Ta = 70 °C; Type 2

Entity Parameters: Ui (Vmax) = 30 V, Ii (Imax) = 125 mA, Pi = 0.70 W, Ci = 0.030 µF, Li = 0 mH

b = Output Pressure Range: C, D, E, F G, H, L, I, J

d = Options: A

Specific Conditions for use:

1. When installed in Division 2 Hazardous (classified) locations, a warning label must be prominently affixed near the unit(s) which warns that the cables must not be removed or inserted unless the area is known to be non-hazardous.

2. The enclosure contains aluminum and is considered to constitute a potential risk of ignition by impact or friction and must be taken into account during installation and use.

I/P Converter T900-AbTd

IS/I/1/CD/T4 Ta = 70 °C; - 431-990-023 Entity; Type 2

I/O/AEx ia/IIB/T4 Ta = 70 °C- 431-990-023 Entity; Type 2

NI/I/2/ABCD/T4 Ta = 70 °C; Type 2

Entity Parameters: Ui (Vmax) = 30 V, Ii (Imax) = 125 mA, Pi = 0.70 W, Ci = 0.030 µF, Li = 0 mH

b = Output Pressure Range: C, D, E, F G, H, L, I, J

d = Options: A

Specific Conditions for use:

1. Must be installed in suitable equipment enclosure in accordance with ANSI/ISA S82.01 & S82.03.
2. When installed in Division 2 Hazardous (classified) locations, a warning label must be prominently affixed near the unit(s) which warns that the cables must not be removed or inserted unless the area is known to be non-hazardous.
3. The enclosure contains aluminum and is considered to constitute a potential risk of ignition by impact or friction and must be taken into account during installation and use.

E/P Converter T900-abAd

NI/I/2/ABCD; S/II,III/2/FG/T4 Ta = 70 °C; Type 4X

a = Input Signal Range: C, D, E, F

b = Output Pressure Range: C, D, E, F G, H, L, I, J

d = Options: A

E/P Converter T900-abcd

NI/I/2/ABCD/T4 Ta = 70 °C; Type 2

a = Input Signal Range: C, D, E, F

b = Output Pressure Range: C, D, E, F G, H, L, I, J

c = Electrical Connection: D, T

d = Options: A

Special Condition for use;

1. The E/P Converter type T900-AbcT, must be installed in suitable equipment enclosure in accordance with ANSI/ISA S82.01 & S82.03.
2. When installed in Division 2 Hazardous (classified) locations, a warning label must be prominently affixed near the unit(s) which warns that the cables must not be removed or inserted unless the area is known to be non-hazardous.

Equipment Ratings:

Intrinsically safe for Class I, II, and III, Division 1, Groups C, D, E, F, and G hazardous (classified) locations and intrinsically safe for Class I, Zone 0, Group IIB hazardous (classified) locations and suitable for Class I, II, and III, Division 2, Groups A, B, C, D, F, and G.

FM Approved for:

ControlAir Inc
Amherst, NH

This certifies that the equipment described has been found to comply with the following Approval Standards and other documents:

Class 3600	1998
Class 3610	2010
Class 3611	2004
Class 3810	1995
ANSI/ISA 60079-0	2009
ANSI/ISA 60079-11	2009
ANSI/ISA NEMA 250	1991

Original Project ID: 3009267

Approval Granted: September 9, 2003

Subsequent Revision Reports / Date Approval Amended

Report Number	Date	Report Number	Date
081119	January 29, 2010		
3042023	March 6, 2012		

FM Approvals LLC



J. E. Marquedant
Group Manager, Electrical

6 March 2012

Date

CERTIFICATE OF CONFORMITY



1. **HAZARDOUS (CLASSIFIED) LOCATION ELECTRICAL EQUIPMENT PER US REQUIREMENTS**

2. **Certificate No:** FM18US0171X
3. **Equipment:** T950-Abc
(Type Reference and Name) **Current-to-Pressure Converter**

4. **Name of Listing Company:** ControlAir Inc

5. **Address of Listing Company:** 8 Columbia Dr, Amherst,
New Hampshire 03031,
USA

6. The examination and test results are recorded in confidential report number:

3009088 dated 17th December 2001

7. FM Approvals LLC, certifies that the equipment described has been found to comply with the following Approval standards and other documents:

FM Class 3600:1998, FM Class 3610:2010, FM Class 3611:2004, FM Class 3615:2006, FM Class 3810:1995, ANSI/ISA 60079-0:2009, ANSI/ISA 60079-1:2005, ANSI/ISA 60079-11:2009, ANSI/NEMA 250:1991

8. If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to specific conditions of use specified in the schedule to this certificate.

9. This certificate relates to the design, examination and testing of the products specified herein. The FM Approvals surveillance audit program has further determined that the manufacturing processes and quality control procedures in place are satisfactory to manufacture the product as examined, tested and Approved.

10. **Equipment Ratings:**

Explosionproof for Class I Division 1, Groups B, C, and D, T6, Dust Ignitionproof for Class I, Division 1, Groups E, F, and G, T6; Flameproof for Class I, Zone 1, Group IIB + H2, T6 hazardous (classified) locations. Intrinsically safe for Class I, II, and III, Division 1, Groups C, D, E, F, and G, T4 and for Class I, Zone 0, Group IIB, T4 hazardous (classified) locations. Nonincendive for Class I, Division 2, Groups A, B, C, D, T4, and Class II and III, Division 2, Groups F and G, T6 hazardous (classified) locations.

Certificate issued by:

J.E. Marquedant
VP, Manager, Electrical Systems

14 June 2018

Date

To verify the availability of the Approved product, please refer to www.approvalguide.com

THIS CERTIFICATE MAY ONLY BE REPRODUCED IN ITS ENTIRETY AND WITHOUT CHANGE

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SCHEDULE



US Certificate Of Conformity No: FM18US0171X

11. The marking of the equipment shall include:

XP / I / 1 / BCD / T6 Ta = -20 °C to 70°C; DIP / II, III / 1 / EFG / T6 Ta = -20 °C to 70°C;
IS / I, II, III / 1 / CDEFG / T4 Ta = -40 °C to 70°C - 431-990-025 Entity;
I/1/AEx d IIB+H2 T6 Ta = -20 °C to 70°C
I/0/AEx ia IIB T4 Ta = -40 °C to 70°C - 431-990-025 Entity;
NI / I / 2 / ABCD / T4 Ta = -40 °C to 70°C; S / II, III / 2 / FG / T6 Ta = -20 °C to 70°C; Type 4X

12. **Description of Equipment:**

T950-Abc I/P Converter

XP / I / 1 / BCD / T6 Ta = -20 °C to 70°C; DIP / II, III / 1 / EFG / T6 Ta = -20 °C to 70°C;
IS / I, II, III / 1 / CDEFG / T4 Ta = -40 °C to 70°C - 431-990-025 Entity;
I/1/AEx d IIB+H2 T6 Ta = -20 °C to 70°C
I/0/AEx ia IIB T4 Ta = -40 °C to 70°C - 431-990-025 Entity;
NI / I / 2 / ABCD / T4 Ta = -40 °C to 70°C; S / II, III / 2 / FG / T6 Ta = -20 °C to 70°C; Type 4X

Entity Parameters:

Ui (Vmax) = 30 V, Ii (Imax) = 125 mA, Pi = 0.70 W, Ci = 0 µF, Li = 0 mH

b = Output Pressure Range: C, D, E, F

c = Option: A, E, T

The T950 Converter converts a current or voltage input signal in to a linearly proportional pneumatic output pressure.

The I/P Converter has configuration switches and access to the configuration switches requires the Converter enclosure be opened. Calibration zero and span adjustments can not be made without the enclosure being opened.

The I/P Converter operates at on a supply of 4 to 20 mA Vdc.

The ambient operating temperature range of the T950 is -40°C to 70°C.

Enclosure

The enclosure measures approximately 3 1/2 inches in diameter and approximately 3 inches high. The enclosure is a chromate treated aluminum with epoxy paint and has the ability for conduit connections.

13. **Specific Conditions of Use:**

1. The I/P converter was found to be suitable for use with methane as the process medium.
2. The enclosure contains aluminum and is considered to constitute a potential risk of ignition by impact or friction and must be taken into account during installation and use.

14. **Test and Assessment Procedure and Conditions:**

This Certificate has been issued in accordance with FM Approvals US Certification Requirements.

15. **Schedule Drawings**

A copy of the technical documentation has been kept by FM Approvals.

THIS CERTIFICATE MAY ONLY BE REPRODUCED IN ITS ENTIRETY AND WITHOUT CHANGE

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SCHEDULE



US Certificate Of Conformity No: FM18US0171X

16. Certificate History

Details of the supplements to this certificate are described below:

Date	Description
17 th December 2001	Original Issue.
14 th June 2018	<u>Supplement 3:</u> Report Reference: – RR214188 dated 14 th June 2018 Description of the Change: Minor model code update.

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